Symbolic Communication and the Notion of “Pachamama” in the “Quechua” and “Aimara” Cultures

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Abstract—The objective of this research is to interpret and understand the symbolic communication and the ritual manifestations of the earthly and aquatic incidence of the descendants of the Inca Empire. The research approach is qualitative, and the method is observation and in-depth interview, to analyze the underlying meanings and patterns of social relationships from the data obtained in field observation and the selection of key informants. The results of the communication and culture are manifested in the ceremony of the offering to the “Pachamama” Mother Earth in the main festivals of the agricultural calendar. As for the aquatic motivation, the water cult ceremony is associated with the symbolic figure of the aquatic beings, such as: the observation of the behavior of the toads, the fish and the birds, in the different months of the year.

Keywords—Aymara, Andean, Cosmic, Spirit, Quechua, Mother Earth, rituals, symbol.

I. INTRODUCTION

Studies on communication and culture have always tried to synchronize themselves in theoretical terms, from the abstract vision and not through the interpretation of the meaning and meaning of social and cultural construction. Therefore, to face the problem of communication in theoretical terms, it is necessary, in principle, to understand culture as an asymmetric “social” construction, or better, as a complex articulation of symbolic networks (Cassirer, E. 1997), the author explains that Man can not confront reality immediately, he treats physical reality only through the symbolic constructions of language, myth, heart, magic and science. In the same perspective (Clifford Geertz, 1997, cited in Bech, J. 2006), considers that “man is an animal inserted in plots of importance that he has woven himself” and that “culture is that warp, the analysis of culture must be, therefore, not an experimental science in search of laws, but an interpretative science in search of meanings ” (Bech, J. 2006)

In different cultures conceptions are built on communication systems and behavior of nature's phenomena, people weave myths that refer to the origins of life, individuals observe the movement of stars, human groups elaborate stories that motivate the states of water in the process of climate change, societies build spiritual conceptions about death and some cultures animate the things of the world, through informal communication and education. In this way, "the Andean culture conceives nature as a living and highly sensitive being capable of responding positively or negatively" (Llanque, 1993). The objectives of this article seek to explore the communication systems and the symbolic representation of the terrestrial and aquatic space of the Andean “Quechua” and “Aymara” man culture of the high plateau of Puno, Peru. The importance lies in understanding the current communication systems and the harmonious planning between man and nature. In the processing of frozen and dried potatoes, "the days destined to raise the Chuño are usually on Mondays, Wednesdays, Saturdays and Sundays, they are never carried out on Tuesdays and Fridays, because it is believed that these days the Pope, like Chuño , receives the disease "(Condori, 1992, p.17). In this case, the process of the methodology to obtain information was of the existence and visit to the peasant communities.

The most common instruments in the collection of data were the recording of the narration of the testimonies, the recordings of interviews, the dialogue with the native sages and the lifting of the Andean agricultural calendar. The assumptions raised attribute, firstly, to the sensory impulse of the individual who is associated with the motivation of earthly space; and second, the memory of the experienced process is related to climate and weather changes. In this sense, "the
Andean man lives in constant relation with the Mother Earth," Pachamama ", which comprises the mountains, the rivers and the lagoons. On the other hand, the phenomena of nature, such as lightning, the Wind and the Rainbow " (Choquemaqui, 2003, p. 30), which indicates the continuity or suspension of rain.

The review of documents about the so-called “Pacha” in relation to symbolic time and the paratopian space was made: the sacred ritual directed to the Pachamama 'Mother Earth', the plants and the stars; the reading of the ashes of the incineration of the offering; the cyclical time; the divinization of the spirit of the ancestors; the observation of the image of the celestial mirror, where the movement of the sun is perceived, the phases of the moon and the disposition of the stars that have the shape of animals, instruments and things used by the native populations of the Andean south of the Puno highlands. The data collection corresponds to the peasant communities of the Quechua-speaking district of Capachica and Chucuito of Aymara speech, which corresponds to the area of Lake Titicaca. Afterwards, a visit was made to the altipampa area of the Arapa and Pucará districts, the alpaqueras communities of the Khunurana and Allín Qhapaq mountains of the province of Ayaviri and Macusani for the purpose of linking the categories' meaningful links.

II. THEORETICAL PERSPECTIVES OF SYMBOLIC COMMUNICATION IN ANDEAN CULTURE

2.1. Symbolic communication in the Andean culture

Says Ricoeur, J. (1999: 41) in his article, "Philosophy and language" "philosophy has the task of opening the path of language to reality, to the extent that language sciences tend to relax, if not to abolish, the link between the sign and the thing. To this main task are added two complementary ones: to reopen the path of language towards the living subject, towards the concrete person, insofar as the language sciences privilege, at the expense of living speech, the systems, structures and the codes disconnected from any speaker and, finally, re-open the path of language towards the human community, insofar as the loss of the speaker is linked to that of the intersubjective dimension of language ".

The virtual communication systems and the processes of globalization are converting the world, and therefore, the Andean culture into a network of social relationships where symbols, images, goods and people circulate fluidly (Castells M. 1996). At present, most of the goods and messages received in each locality have not been produced within the same territory. On the other hand (García C. 1995), he argues, that in this process they arise from peculiar relations of production, neither carry in them the exclusive signs that link them to the national community, but other signs that rather indicate their belonging to transnational systems. In the same line of thinking is (Hannerz, U. 1993), for the author, the process of construction of identities of the subject is in permanent negotiation between the local and the global, ours and the alien, recreating in the middle of the growing interaction between different cultures without often having a clear anchoring in a given territory. Then, the result of all this would be cultural hybridization or transculturation (García C. 1992), the possibility of expressing themselves more and more in different languages and contexts, of moving to a scenario in which old cultural borders have been diluted among the new folds and margins produced by globalization.

In the study carried out by (Ávila, J. 2004), it is argued that many authors point out that it would be complex processes of simultaneous "globalization" and "localization", denominated under the neologisms of "glocalization" as well, with "c" (Robertson 1992), "creolization" (Hannerz U. 1992), "indigenization" (Appadurai 1996), or "hybridity" (García N. 1992), all concepts that, in short, aim to account for agency capacity and cultural plasticity of the subalitems to reappropriate and redefine their own benefit originally foreign cultural elements. The development of hybrid cultures is related to the process of de-anchoring of space and time (Giddens 1994, cited by Ávila, J. 2004).

In the case of the notion of space, its redefinition generates increasingly deterritorialized logics, where the diaspora of previously "traditional" groups, shows us that what we believed were culturally and geographically delimited societies reveal themselves more and more "structurally" mobile and delocalized (Ávila, J. 2004). In this sense, now also the natives inhabit the "non-places", called spaces of anonymity in supermodernity (Augé 1993). In the case of the notion of space, many analysts speak of a growing "explosion" of memory (Huyssen 2000 cited by Ávila, J. 2004), which coexists and is reinforced by the assessment of the ephemeral, the fast pace, the fragility and transience of the facts of life.

For Ávila, J. (2004) people, family groups, communities and nations narrate their pasts for themselves and for others, who seem willing to visit those pasts, to listen and look at their icons and traces, to ask and inquire. These memories of the culture and cultures of memory would be a response or reaction to rapid change and a life without anchors or roots. Memory would then have a highly significant role, as a cultural mechanism to strengthen the sense of belonging and anchoring in groups or communities. Often, especially in the case of oppressed, silenced and discriminated groups, the reference to a common past allows one to build
feelings of self-worth and greater confidence in oneself and in the group (Yelin 2002). The redefinition of space and time places us in front of new communities of the culture and cultures of the community. These are presented increasingly "deterritorialized" by the world. However, the paradox is that at the same time that cultures and identities are deterritorialized, they are also reterritorialized with unusual vitality. Fundamentally, through the (re) construction of new senses of "localism" (Parker 1998) and "locality" (Appadurai 1996). One of the elements that contributes the most to the construction of localism and locality is the religious sphere. Faced with the vertigo generated by the rapidity of change, for many the sacred makes it possible to build a sense of cosmos that orders the chaos produced in their worlds of life by globalization (Ávila, J. 2004).

2.2. The space ritual of the "Mother Earth" form of symbolic communication with the other

In any circumstance of the critical point of life, such as travel, change of address, distribution of inheritance and treatment of a disease, people turn to an expert called yachaq 'wise' who vents, unravels and reads coca leaves. In case of a condition, this character announces the treatment of the discomfort through an offering to the place of residence or tutelary hill. If someone dreams of an old woman, then it is interpreted as the presence of Mother Earth, Pachamama. In this case, the family makes a small ritual with the coca leaves in the place of residence. Referring to the beings of the inner world, "manqha pacha", they have their share of supernatural power and we must count on their support, because they generate life, they own the minerals called tiyu and source of wealth" (Mallea, 1998, p.35 ), which flows from the underground world.

Once, while at home, a call is heard from a woman and when they go out to see no person appears; then, it is assumed that this phenomenon is the expression of the "Pachamama". In this case, a member of the family makes an invocation to the place of residence of their ancestors. In some times someone has seen a woman walking and suddenly in a blink disappears. Which means that it is a manifestation of the place that becomes a woman. When someone dreams of an old woman who asks for something to eat or water; then, the family performs a small ritual act of offering using the coca leaves and sacred grass, q'uwa. Then it is incinerated in the hearth at night. The next day the ash of the offering is put ten llama fetuses; ten fetuses of sheep; herbs, q'upwa; Coke; sweets; and q'aytu or thread of colors " (Van den Berg, 1989, p.8), are visible figures of the offering.

For Grebe, M. (1983) the cognitive and symbolic patterns persist even after four centuries of conquest and colonization in spite of geographic, historical, social and linguistic factors that influence the generation of contrary influences, which could have weakened or destroyed them. These patterns would have survived beyond the weakening, hybridization or extinction of their own indigenous languages: they would be supraligüísticos.

In a study conducted by Vivian G. et. the. (2011), Reflect on the practices of ancestral knowledge on health and disease in the Andean culture, in this framework maintain that a point of articulation between Andean Tarapacuquean medicine and biomedicine is the equivalence that would exist of the body as a set of organs related to each other that fulfill certain functions. In both cases, the materiality of the human body and its functioning are always present in the diagnoses and forecasts. In this sense, the classifications made in terms of magic-religious diseases exclusively referring to supernatural causes simplify some of the medical practices identified here. Although religiosity invades the health field in most social groups as a way to alleviate uncertainty, we observe that among the less secular Aymaras, unlike Christianity in its hegemonic form, they assign materiality to metaphysical forces.

2.3. Expression of the "Pachamama"

In case of a disease, the coca leaves are read. Then the ceremony of the offering to Mother Earth, ("Pachamama") where the fetus called, coca leaves, incense, wine, alcohol, ritual water called ch'upwa and sweets is performed. Diseases have different denominations in the Aymara language, such as "he is seized by the earth, uraqin katjata, seized by the chullpa, hintilin katjata, seized by bad air, ayri pachawa and seized by the spirit of the devil, ñankhan katjata" (Mendoza , 1978, p.46). In this way, the earth manifests itself in different diseases that attack people, (rune in Quechua and jaqi in Aymara), as well as disease from the earth, also attacks the cattle.

When the call of a female voice is heard at some time of the night, but upon noticing there is no person; then, that voice is interpreted as the call of the "Pachamama". In this case, six coca leaves are chosen and Mother Earth is invoked. It is believed that "the forces of good are in the upper world, alax pacha, men are in this world, aka pacha and the forces of evil are in the inner world, manqha pacha" (Ochoa, 1978, p.13 ). However,
the voice of Mother Earth gives notice in advance so as not to be involved in the world of ills, such as diseases. 

In the dream an old woman appears asking for some food and water; then, a ritual activity is performed invoking the sacred places, such as: the mountains, the springs of water and the place where the family lives. In this case, the Andean medical experts, who "offer rites, luktiri and the curanderos, quilli" (Marca, 1979, p.33), are expert people who many of them survived the fall of lightning.

When the raising of the cattle is born with two heads, some pups die, they appear limping, the sheep eat their wool and frequently abort. In this case, from the ceremony of the offering to the Puchamama, using "medicines like sulphate, quillpa or millu; red earth, taku; bait as rub, llamp'u; and the flower of the earth, uraqi t'ika" (Mamani, B., Mendoza, 1981, p.26), that is, the attachments used in the rituals are the things that come from the mountains, the jungle and the coast, like the seashell.

The residence space where the house is built becomes part of Mother Earth, Pacha Mama, which is a place of connection with the life of the family, because there they live, raise the cattle and make the farm, together with the people of the community; for this reason, "the religious rite and the offering to the earth are made to give a good harvest" (Blanco, 1981, p.5), the procreation of the cattle and the welfare of the family.

The grazing field is considered a part of Mother Earth, Pacha Mama, because cattle feed there. "And what is expected of it is fertility and the gift of new life, vegetable and animal" (Aguiló, 1987, p.46). On the days of the festival the cattle are taken to places that are called "uqhu", where there is abundant natural grass and water from the spring.

The field destined to agriculture constitutes an extraordinary place, where all kinds of rituals of gratitude to Mother Earth are done, because the crops are forms of expression of the life that springs from the earth. "Andean technology also has, from the empirical-economic dimension, a second dimension, which we will call symbolic or religious" (Van Kessel, 1989, p.34), which allows the balance of nature between man and nature.

The terrestrial dimension, as a geographic and variable category of the ethnic toponymy of the Quechua or Aymara people, corresponds to the so-called pacha, which is equivalent to land, time and space. The invocation and offering to Mother Earth extends to sacred places, mountains, snowy mountains, hills, and residences. The ritual act is performed directed to caverns, rocks, gorges and tunnels.

The symbolic figure called "qillqaqa qaqqa" refers to a space of rocky cliffs, where there is a large amount of cave paintings, as in the alpaca area of the province of Macusani, which extends from the top of the snowy "Allin Qhapaq" "And Chichi Qhapaq "to the waterfalls of" llaqta mayu "river of the town’ of the district of Coasa, which borders the jungle.

In the pictographs of ideographic representation, circular shapes, astromorphic pigment rings and parallel lines of textile reference appear. The geometric lines correspond to circles, squares, rhombuses, arcs, disks, rectangles and spiral designs. The most frequent color printing is the pigmentation of green, red, yellow, black, gray and white. The zoomorphic manifestations incorporate the animals of the area such as the llama, the alpaca, the "suri" bird runner, the condor, the snake, the fox, the puma, the "taruka" deer and other cervids. The anthropomorphic manifestations show a group of people who carry sticks and pretend to be ancient warriors, we observe the hunting, the domestication and the grazing of the Andean camelids; the dress has correlates in various forms of textile art, the tocapus, the costumes, the handicrafts and the fabrics with the colors of rainbows; the case of the most notable infrastructure is the chullpa "aya wasi" house of the dead that lasts until now as a sacred place of the ancestors, where they perform rites and give offerings.

III. STUDY METHODOLOGY
The study is based on an ethnographic - qualitative methodological perspective, using the "Face to face" interview technique and participant observation. The sampling for the selection of cases was based on the type of "avalanche sampling or snowball", which consisted of asking key informants (communal authorities) to recommend potential participants. The mechanisms adopted in the selection of participants in the interviews made it easier for us to establish a relationship of trust with the new participants, it also made it easier for us to access people who are difficult to identify. Finally, in the study, the cultural and educational dimensions were prioritized. Having as a unit of observation adults who since childhood have had experiences and as an adult practice communication with their natural environment through rituals and beliefs.

IV. RESULTS AND DISCUSSION
4.1. Symbolic communication in the Andean culture
One of the elements used in communication in any culture is language, but in the Andean culture, language becomes a symbolic element in the communication process with its environment (nature). Language corresponds to the set of signs that serve as a means of understanding between members of the same linguistic community, the set of entities among which is chosen in the free combinations
of discourse (Bech, J. 2006). In the formal structural perspective we have the proposal of (Roman, J. 1958), emphasizes that communication process through a structural model, derived from computing, and had as its components an issuer, a message, a means to transmit it, a receiver, the code and the referent, therefore, does not take into account the intersubjective elements implied by Andean symbolic communication.

In this regard Don Faustino, tells the ritual of the offering to the land in the construction of a family home, it uses cultural artifacts for an affective and harmonious communication with the "Pachamama" Mother Earth, as follows:

[...] To talk with our Pachamama is much respect, for example, to ask permission to build a house to prepare an offering, the offering consists of "iskay llama sullu" two llama fetuses, "kuka k'intu" whole leaves of coca, incense, "wira q'uya" ritual herb, "kuka mukllu" coca seed, pallar, chickpea and beans. All that, is incinerated in a luminary, which was built in advance for midnight. Then, the next day, the paqu 'wise' is responsible for interpreting the characteristics of the ash. The white, like cotton, means that the Pachamama 'Mother Earth has received very well, ch'i'chi' the gray 'means that something is missing, "yana" black reveals that something was forgotten and mana "ruphasqa" without burning announces that this product was not received by the place (Faustino Condori).

![Fig.1: Preparation of offering to build a house.](https://www.google.com/search?q=Flickr%20search%20Pachamama&tbm=isch&sa=1&ei)

The autopoietic system has a sufficient degree of autonomy to make changes in its structure that are appropriate for the conservation of its organization, its identity and viability. The reaction of the system at a given moment to a disturbance in its environment is determined by the state of its structure at that moment and by the history of its previous structural changes (Earls, J. 1998). It is important to emphasize that the interactions of the environment with the self-organizing system do not determine the actions that occur in the system or its components. All change is determined by the structure. Autonomy does not mean that the systems isolated from other systems or its environment. In general, the maintenance of self-organization and autonomy depends on the input of energy from external sources.

Therefore, in the Andean culture communication systems are more affective and harmonious with nature, therefore, it is not only worldview, but “cosmovivencia”; that goes beyond the sphere of seeing, observing, interpreting the world. It is a matter of living in a respectful and harmonious relationship, not only with nature but with oneself and with others, interculturality process as Walsh, K. (2012) would say.

Don Leonidas Mamani, summarizes the artifacts used in communication with Mother Nature (Pachamama) in the Andean culture:

[...] We Andeans can not understand ourselves as separate beings from our Mother Earth; nor can we think that the Earth is like the inert planet, without life. ... We are sons and daughters of the Earth "Pachamama", that is why our coexistence is harmonious and of great respect, as our ancestors said the Earth thinks, speaks, feels and also loves as a mother her children. That is why we have learned to communicate with Mother Earth, through "pagachis" - offerings for every occasion. We know when she asks and what offerings, through coca leaves (Leonidas Mamani).

In the Andean culture communication systems are centered on the harmony with the life of all natural and supernatural beings, therefore, it turns out to be an interdependent group transformed from always, in the millennia of human development, of institutions and rituals imbricated with it , knowledge and knowledge "stored" both in the transformed nature and in the social institutions and ritualized forms of interaction between men and nature.

Mejía, J. (2007) by contextualizing the global processes of communication coined the concept of globalization, for the author it is likely that the image most accepted by different authors is what defines it as two complex, contradictory, differentiated, parallel tendencies and complementary between the expansion of globalism and the development of local networks. The first trend is global integration "that creates transnational social networks and spaces", society gradually advances to cultural unity. The second trend is the revaluation of local cultures, the division of social existence, the development of identities based on ethnic, religious, national, family and other belongings. Today's society is
increasingly dominated by the relationship between global integration and cultural identity.

Don Remigio comments on the effects of globalization on the communication systems of the Andean culture with Mother Earth:

[...] The great media nowadays is affecting the respectful and harmonious communication that we had before with our Mother Earth. When we do not obey and respect the "Pachamama" she sends us punishments, reacts catastrophically to the attitude of the Runa (man), who does not respect the mandates of nature (Remigio Choquehuanca).

Nowadays, communication systems and global cultural integration mean the development of a Eurocentric vision, that is, cultural globalization is the dominant form that establishes certain tendencies: First, it is the internationalization of life forms; development of media throughout the world (television, film, cable, internet, etc.) The media, especially in the most developed countries, have the ability to influence the culture of countries and threaten his own independence, particularly from Latin America. At present, not only almost everybody participates, in some way, of the global culture irradiated by the world powers, but the same powers appropriate native products and cultural images, to make it part of the world capitalist system. Therefore, a global order of information is configured, that is, an international system of production, distribution and consumption of information (Mejía, J. 2007). Second, the use and access to digital technology and cyber space has become the raison d'être of young people at the beginning of the 21st century. In Latin America, the great cultural leap is the sacralization of technology that replaces old trusts, informs powerfully, mobilizes mentalities, introduces, despite everything, very extensive notions of tolerance and translates, of course, into a system same time of inclusion and exclusion. In concrete terms, it is expressed in the mass of Internet access in Peru, we are part of the countries that have the most connection to the Internet in Latin America, mainly due to the development of public booths (Mejía, J. 2007).

Doña Clara tells how children, young people and adults in her community have changed the ways of communication, through the use and access to certain technological devices:

[...] Today, everyone uses a cell phone to call relatives and other people, my grandson says that he has friends in other countries and he tells me that they speak through the Internet. I think that this has changed their behavior, now young people are very cold, they no longer have feelings or values, they no longer respect their parents, the are no longer discussed. In addition, they no longer want to practice our customs, I think, because of the facilities that exist today (Clara Apaza).

4.2. The offering as a symbol of communication with Mother Earth

Currently, the process of building a new house begins with a ritual led by a native paqu 'wise', who invokes the Pachamama 'Mother Earth' to the wilanchu 'offering to the earth', which consists of sprinkling with blood of cattle on the wall of the house and the incineration of the bones of alpaca, llama, sheep or pig at midnight. On the other hand, the one of August is the ritual of a new productive cycle; January twenty, ritual of the first maturation; two February, ritual to the cattle, trees, farms and agricultural products; May fifteenth, harvest ritual; and June twenty-fourth, ritual of the packing of the cattle.

Clara recounts the ritual of the offering to the Pachamama, in which cultural artifacts are used for an affective and harmonious communication with Mother Earth, in the following way:

[...] In the morning, houses and different spaces are purified with incense, the "smoke of the cosmic space". The residues that can be found in the home are removed and burned next to aromatic plants or with medicinal properties: laurel, coca, rosemary, yerba, rue. The burned incense rises to the sky and is a form of offering to the Jananpacha or "world of above", they also burn vegetable resins and palo santo for the Pachamama (Clara Apaza).

Fig.2: Payment to Mother Earth “Pachamama” in Azangaro. Recovered from:https://www.google.com/search?q=imagen+de+pagina+a+la+tierra+en+azangaro

The lightning ritual ceremony is performed when it falls to the houses, animals, trees and lands of some
family. Then, the people who have survived the spark of lightning become part of the healers, that is, they become an Andean doctor selected by nature. Meanwhile, the spaces where the lightning struck are considered sacred places that need a ritual on the part of the affected family. The summits of the road known as apachita are reserved, there the travelers rest and pile stones in order that their sorrows remain retained in the rock. Some walkers carry the lizard’s precious stone as a symbol of strength.

On the other hand, the ancestral practice of the use of medicinal herbs for the treatment of diseases continues. In the dictionary of Aymara Castilian (Condori, 2011), plants called wira-wira (Gnaphiaium vira vira sp.) and "sunila or misiku" (Bidens pilosa andicola) are hot; in the work of native medicinal flora (Cáceda, D.; Rossel, 1993), plants called "alkqu khichka" dog spine (Xanthium catharticum Humbolt, Bonpland et Kunth) and mustasa or wild turpin (Brassica rapa L. Sin. campestris L.), which are cold or fresh; and the plants as "chhuqu-chhuqu" (Gentiana scarlatina Gilg Fabris) and in the book of medicinal plants (Pahlow, 1981), the borage (Borago officinalis L. Borragináceas). These plants, in the Andean world, are, in themselves, fresh and hot. The fever produced by the heat of the sun is treated with fresh herbs and the fever produced by the cold is treated with hot herbs. Two types of fever are known: fever produced by the heat of the sun and fever produced by the cold.

4.3. The aquatic phenomena

In case of inflammation, swelling of the throat and tonsils because of the cold, then the patient is made to sweat all night until the hot sweat comes out. In this process, "the sages, yatiris and healers, paqunaka, are responsible for performing these rites of atonement in due time and remember the moral laws" (Llanqui Chana, 1985, p.20), which were practiced by generations in the life of ancestral peoples. In addition, there are several natural and animal phenomena as indicators of the presence or absence of rainfall, such as: variety of fish, water bubbles, and the flow of springs, waterfowl and batrachians.

Referred to the fish, such a 'variety of fish' sometimes appears in a lagoon or spring; then, it is an extraordinary being called anchanchu and other people associate with the siren; in these conditions, fishing does not proceed. However, "we must be aware that much of that knowledge is no longer possible to recover from the unwritten science of the peasants" (Enríquez, 1987, p.15). But the wisdom of the technology of the management of platforms and water rituals still persistent.

When water bubbles form in rainy weather it indicates the highest amount of rainfall in the following days. In this case, "the reading and interpretation of the greatest number of indicators of the Andean ecology translates into concrete technological strategies" (Enríquez, 1987, p.9), in order to avoid floods and overflow of rivers.

At the end of the winter season, the increase in the flow of water from the springs and rivers indicates the early presence of rain. Then, "you start to prepare the seed, to throw the furrows. Once the seed is ready, an official yuntero is named and this begins to open the furrows "(Blanco, 1981, p.5) and suddenly a couple of crows appear, because there are worms in the field. Then, the presence of the birds means good luck, there will be harvest of the first planting.

The transfer of birds from Lake Titicaca to the highlands near the mountain ranges is a sign of the continuation of rainfall, because temporary lagoons have formed in different parts of the Andean highlands, where there is enough food for the birds. At that time you can observe the "spirits of rainbows, kumí, of white color, which appears during the night and is found in wet places, marshes and springs" (Ochoa, 1978, p.5). These luminous stripes indicate the entrance door to the interior world, where the subterranean beings emerge.

The toads appear in puddles of water that have formed in the winter season, that's where they place their eggs during the rainy season. However, in recent times toads have disappeared from the highlands, only in the areas near Lake Titicaca, still, you can see the toads. Thus, both in the Quechua area and "the myths of the Aymara countryside symbolize the varied aspects of the cultural reality that exists in the altiplano and make it communicable and understandable not only to the current generation but also to the future" (Cadorette, 1978, p.4). The appearance of large numbers of toads indicate the highest rainfall and the temporary disappearance of these batrachians indicate the low temperature and the risk of frost.

4.4. Signs of the water cycle

On the side of nature, large fish usually appear in deep lagoons and rivers; then, in this case, you should not dare to fish, because that is a charm of the siren called "anchanchu". This phenomenon of the appearance of rare fish occurs in years of greater rainfall. In some years there is a very fine kind of drizzle, in a calm and windless climate. This phenomenon is a sign of a good agricultural year. In some rivers and springs the increase in water flow is observed; then, this phenomenon is an indicator of the presence of rain as a sign of the first sowing. On the other hand, Lake Titicaca is a space for the appearance of very rare beings that impress the inhabitants.
As Pedro tells us, about the appearances of aquatic beings with the appearance of fish and other forms of animals:

"[...] In some islands of Lake Titicaca appears the so-called "xixi" animal' that resembles a donkey', but without back. This figure of an unknown being usually leads people when they are alone. That's why some people get lost in the lake. Once, when we traveled at night in a motor boat, suddenly appeared a mound of stars floating in the lake. When we approached, it turns out that it was simply a bunch of giant frogs braided one on top of the other, that their eyes shone as they focused with the light. Then on being discovered they disappeared in the water (Pedro Pancca, Taquile Island).

The aquatic dimension as a hydrographic and variable category of the water states, whose indicator is the "yaku" water, "qucha" lake and "mayu" river. Farmers forecast the rainy year, shortage of rain and year of drought, from the observation of the stars, the direction of the wind, the croaking of the birds, the observation of the egg of the wild birds, the flowering of the plants and the howling foxes.

On the twentieth of March, the autumn equinox, the ritual ceremony of the offering to Mother Lake, called "Mama Q'uta" on the Island of the Uros of Lake Titicaca, takes place. In this month the direction of the wind is interpreted in relation to rain and drought. The plants indicate the presence of frost, rain and drought, the behavior of the animals announces rain, hail and drought. The song of the women symbolizes the production of potatoes and the males represent the beans. The butterflies called "pipilintu" announce the flowering and ripening of the crops. The snowfall of the volcanoes indicates the abundance or scarcity of rainfall in the following agricultural season.

V. CONCLUSIONS

In the Andean culture, the way of perceiving nature and its institutions as permanent entities, beyond the time that elapses at the level of the individual life cycle, has profoundly influenced the conceptualization of the forms of communication in the Andean culture. The changes at the level of cultural artifacts used to harmonize the communication and relationship with the "Mother Earth" are interpreted the meaning of the characteristics of the artifacts caused by metaphysical forces.

The systems of communication with nature "Mother Earth" is of the triad type (nature - deities and man). Therefore, coexistence is based on "good living" and the "live well" model is questioned, the latter is a type of development that offers us the possibility that man, the human species, manages to dominate the natural forces to live better and well. This is where the power relations between the human species and nature are established. In this field of struggle, the "Pachamama" reacts catastrophically as Don Remigio mentions, in the face of the predatory and devastating attitude of the human being, and according to the Andean cosmovision, this is not the asymmetrical relationship between the rune (man) and the Pachamama.

The aquatic symbols are represented by rain, snow, hail, frost and wind. Historically, the people of Quila Suyu used the campfire on frosty nights, especially at dawn, in order to counteract the low temperature. The classification of ethnic rainfall is called chacra rain, nákhuy for; hail, "chikchi"; isolated rain, "chirapaku"; soft rain, and snow, "rit'i".

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